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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10:092,476	03/08/2002	Rikuro Obara	2523-074	1201

7590 09/02/2003

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EXAMINER

MOHANDESI, IRAJ A

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 09/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/092,476	OBARA, RIKURO	
	Examiner	Art Unit	
	Iraj A Mohandesi	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. The claims are generally narrative and indefinite, failing to conform to current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.
3. **Claims 3 and 4** are objected the limitation "rings made of material lower in its", the word rings is plural and the word its is singular.

Correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1,3,4** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chuta US patent 5,138,209** in view of **Tarrant 3,986,754**.

Chuta'209 discloses motor having a rotational member (126) supported through a bearing device (110) provided on a base member (105) of the motor, the bearing device comprising upper and lower ball bearings each of which includes an inner ring (114) fit around a shaft of the motor, an outer ring (126), and a plurality of balls (122) interposed there between, the bearing device further

comprising, a spacer (125) interposed between the outer rings of the upper and lower ball bearings (see Fig.1), spacer (125), the inner rings are inherently press fit (see Fig.1).

Chuta'209 teaches all limitation of the claimed invention except a spacer is made of material larger in its coefficient of linear expansion than that of the upper and lower outer rings.

Tarrant'754 discloses a bearing having a spacer is made of material larger in its coefficient of linear expansion (20 is made of soft metal inherently has a larger expansion coefficients) than that of the upper and lower outer rings to provide a proper axial fit-up.

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine **Chuta'209** motor with a spacer is made of material larger in its coefficient of linear expansion than that of the upper and lower outer rings as taught by **Tarrant'754** to provide a proper axial fit-up.

6. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Obara US patent 5,828,150** in view of **Tarrant'754**.

Obara'150 discloses a motor having a rotational member (10) supported through bearing device provided on a base member (10) the bearing device comprising, a stepped shaft (1) including a larger diameter (2a) shaft portion around which an inner ring raceway is formed (2a) directly thereon and a reduced diameter shaft portion(1b), a ball bearing including an inner ring (5a) fit around the reduced diameter shaft portion(Fig.1), and an outer ring(5b), an outer ring surrounding the inner ring raceway provided around the larger diameter shaft portion, a plurality

of balls (6) interposed between the inner ring raceway and the outer ring raceway formed on the inner surface of the outer ring.

7. Obara US patent 5,828,150 in view of Torrant'754.

Obara'150 teaches all limitation of the claimed invention except a spacer is made of material larger in its coefficient of linear expansion than that of the upper and lower outer rings.

Torrant'754 discloses a bearing having a spacer (20) is made of material larger in its coefficient of linear expansion is made of soft metal inherently has a larger expansion coefficients than that of the upper and lower outer rings to provide a proper axial fit-up.

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine **Obara'150** motor with a spacer is made of material larger in its coefficient of linear expansion than that of the upper and lower outer rings as taught by **Torrant'754** to provide a proper axial fit-up.

With regards to **Claims 5-8.**

Gonser US patent 4,966,552 a rotary instrument having roller bearing made of ceramic to provide a non-lubricant bearing.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of **Chuta'209 Torrant'754** and **Obara'150 ,Torrant'754** with ceramic bearings as taught by **Gonser'552** to provide a non-lubricant bearing.

Communication

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Iraj A Mohandesi whose telephone number is (703)305-3242. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 703-308-1371. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-0377.



IM August 25, 2003

BURTON S. MULLINS
PRIMARY EXAMINER